

DMIE Procedure

Post Delivery Support

1. Title

Support to Flight Project Following Parts Delivery

2. Process

Provide Electronic Parts Engineering

3. Steps

Actor	Step	Action
WAIVERS		Reference JPL Policy and Procedure on Waivers.
Project	1a	Submits waiver for review
Parts Interface Engineer	2a	Submits waiver to Parts Engineer
Parts Engineer	3a	Review waiver, provide recommendations, and risk assessment.
Parts Interface Engineer	4a	Determine any cost/schedule impact and make recommendation to project.
ALERTS		
Alert Coordinator	1b	Submits an Alert to Project Alert Closer (Project Manager, Mission Assurance Manager, or PIE) for Closure
Project Alert Closer	2b	Determine if item is used; if not, submit closure. If used, submit to Parts Engineer and/or Designer for evaluation and recommendation.
Parts Engineer/Designer	3b	Review Alert, provide recommendations, and risk assessment.
Project Alert Closer	4b	Determine any cost/schedule impact and recommend preventive/corrective action to the project.
Project	5b	Select preventive/corrective action.
Parts Engineer/Designer	6b	Implement preventive/corrective action.

Project Alert Closer	7b	Record project decision and corrective action and submit to Alert Coordinator.
Margin Analysis		
Designer Cognizant Engineer Reliability Engineer	1c	Identifies insufficient margins for mission environment.
Office 507	2c	Performs special test to establish true part capability.
Designer Cognizant Engineer Reliability Engineer	3c	Determine if re-characterization allows use of existing parts. If not, select new part (see Part Selection procedure).
KITTING ERROR		
Cognizant Engineer	1d	Returns incorrect parts
Stores	2d	If correct parts are in Stores, kit out new parts. If not, re-buy parts per Parts Acquisition procedure.
Stores	3d	Notify Cognizant Engineer when kitted parts are available.
FAILED PART (Part Level Test and Inspections)		
Stores or Quality Assurance Engineer	1e	Notify PIE of part failing receiving or other test inspection.
Parts Interface Engineer (PIE)	2e	Obtain failed part and pertinent failure information.
PIE, Parts Specialist and FA Technician	3e	Review information and develop analysis strategy.
PIE	4e	Prepare Work Order and submit with failed part to Failure Analysis.
Failure Analysis Technician	5e	Process parts per Failure Analysis Task Instruction, D-158xx .
Failure Analysis Technician	6e	Prepare report in accordance with Failure Analysis Reporting procedure.
Cognizant Engineer	7e	Determine corrective action based on FA report and, when appropriate, in consultation with Parts Specialist.
FAILED PART (Assembly Level)		
Cognizant Engineer	1f	Returns defective part to Parts Interface Engineer (PIE).
PIE	2f	Prepare Work Order and submit with failed part to Failure Analysis.
Failure Analysis Technician	3f	Process parts per Failure Analysis Task Instruction, D-158xx .
Failure Analysis Technician	4f	Prepare report in accordance with Failure Analysis Reporting procedure.
Cognizant Engineer	5f	Determine corrective action based on FA

		report and, when appropriate, in consultation with Parts Specialist.
EXTRA PARTS		
Cognizant Engineer	1g	Returns spare parts to PIE
Stores	2g	Process parts into Stores per D-18652.
FLIGHT ANOMALY		
Operations	1h	Request review of in-flight anomaly.
Mission Assurance Manager, PIE, Parts Specialist	2h	Assess mission data to an explanatory part failure model. Office 507 to provide historical data on parts and possible failure modes and mechanism.

4. Applicability

The procedure addresses the various supporting actions that occur during or after the delivery of flight electronic parts to the requestor.

5. Tips (optional)

Additional information about electronic parts and parts engineering can be found at <http://parts.jpl.nasa.gov/>.

6. Source

Provide Electronic Parts Engineering

7. Rationale

Issues commonly arise after electronic parts have been delivered to the project. Procedures for resolving these issues are necessary to prevent impact on the hardware build cost and schedule as well as mitigation of potential risks.

8. Consequences

Natural consequences:

- Not meeting mission objectives.
- Not achieving low life cycle costs.
- Not achieving the desired mission risk level

- Delaying mission

9. Trigger/Result (optional)

TRIGGERS:

1. Defective/wrong parts: Sometimes build errors are found during fabrication. This may cause errors in the parts list as compared to the build list, which must be corrected.
2. Margin (worst case) analysis: May show that some parts need to be tested parametrically and/or for radiation tolerance. This review could cause a part change and a new procurement.
3. GIDEP (Government-Industry Data Exchange Program) Alert Issued: Triggers a review of parts list and if a “hit” is made, the Project is advised.
4. Waivers: Project may request Office 507 to make a risk assessment.
5. Post Fabrication: Spare parts are returned and must be processed into Flight Stores.
6. Post Launch: Failure may require remote Failure Analysis to help resolve problems

10. Related Procedures (optional)

Parts Program Management
Develop Approach
Support Selection
Parts Acquisition
Parts Knowledge Management
Parts Engineering Facility Management

11. Frequently Asked Questions (optional)

[TBD]

12. Change Description

This is a new procedure.

13. Notification (optional)

[X] Visible Draft or

[] Invisible Draft

Reviewers:

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